

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: On-site Inspection**

P089373793

FACILITY: EPSI		SRN / ID: P0893
LOCATION: 1125 Morren Court, WAYLAND		DISTRICT: Kalamazoo
CITY: WAYLAND		COUNTY: ALLEGAN
CONTACT: Cory Fogg , Plant Manager		ACTIVITY DATE: 03/12/2024
STAFF: Cody Yazzie	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

On March 12, 2024 Air Quality Division (AQD) staff (Cody Yazzie and Mariah Scott) arrived at 1125 Morren Court, Wayland Michigan at 10:30 AM to conduct an unannounced air quality inspection of EPSI SRN (P0893). Staff made initial contact with Joe Nichols, EPSI, Coater, and stated the purpose of the visit. Cory Fogg, EPSI, Manufacturing Manager is the environmental contact and arrived shortly thereafter and took staff to his office for further discussions.

EPSI operates a batch type burn-off oven that is used for removing Plastisol coatings, with polyvinyl chloride (PVC) resin from metal parts. After the old plastisol product is removed in the burn-off oven, the racks are coated in two dip tanks. The racks first get dipped in the primer coating tank, and an air hose is used to spray excess primer coating back into the tank. The racks then air dry before being placed in the curing oven. The second time the parts are coated they are dipped into a plastisol coating dip tank. After these parts are dipped, they are placed once again in the curing oven. EPSI has around 7 employees. Typical business operation take place on one shift per day from 4:00 A.M. – 2:00 P.M. Monday through Thursday.

On October 26, 2022 EPSI was issued PTI No. 16-18A which permitted the facility to emit 17.50 TPY of hydrogen chloride (HCl) emissions from EU-BURNOFF. Since HCl is a HAP and this new permitted limit exceeded the major source threshold of 10 TPY of an individual HAP EPSI had 12 months to submit an initial ROP application. On November 2, 2023 AQD sent EPSI a violation notice for failing to submit their initial ROP application as required once the facility had PTE for an individual HAP over major source thresholds. The facility responded to the violation notice indicating that business operations changed and no longer needed the permit for increased HCl emissions, because of this the facility stated they would apply for an opt-out permit. On January 4, 2024 EPSI was issued PTI No. 16-18B, which established opt out limits for both individual and aggregate HAPs. This appeared to resolve the issue cited in the November 2, 2023 violation notice.

EPSI was last inspected by the AQD on November 21, 2019 and appeared to be in Non-compliance at that time with PTI No. 16-18. Staff asked, and Mr. Nichols stated that the facility does not have any emergency generators, boilers, or cold cleaners.

Mr. Nichols gave staff a tour of the facility. Required personal protective equipment are safety glasses and steel toe boots. Staff observations and review of records provided during and following the inspection are summarized below:

**EU-BURNOFF:**

EU-BURNOFF is a batch type natural gas-fired burn-off oven, Model GO-7212072, for use in removing Plastisol coatings with polyvinyl chloride (PVC) resin from metal parts. The oven is equipped with an 800,000 BTU/hour afterburner control system.

This burnoff oven can only be fueled by natural gas. EPSI also has permit conditions included in PTI No. 16-18B that require EU-BURNOFF to only process PVC/Plastisol coatings, cured paints, oil or grease on metal parts, racks or hangers. The permit also has language that specifically exclude the burn off oven being used for the thermal destruction of rubber, uncured paints, or any other materials containing non-chlorine halogens such as Teflon. When asked during the inspection Mr. Nichols answered that the facility only processes racks for the automotive industry.

Permit No. 16-18B requires that the EU-BURNOFF not be operated unless a secondary chamber or afterburner is installed, maintained, and operated in a satisfactory manner. EPSI is also required by the permit to maintain this secondary chamber or afterburner to a temperature of 1400 degrees Fahrenheit and keep records of the temperature at least once every 15 seconds. The facility uses a thermocouple and a circle chart to monitor and record the temperature of the afterburner on a continuous basis. There were five random dates of circle charts that were reviewed. The dates of circle charts that were reviewed were 1-19-2023, 4-12-2023, 5-11-2024, 5-15-2024, 5-16-2023, 5-17-2023, 6-8-2023, 6-12-2023, 7-18-2023, and 8-10-2023. All these dates showed that the afterburner appeared to be maintained above 1400 degrees Fahrenheit while EU-BURNOFF was in operation. The thermocouple was reported as being last calibrated on 8-4-2023.

EPSI has restrictions on how many pounds of plastisol coating can be processed through EU-BURNOFF. There is both a pounds per batch limit along with pounds per 12-month rolling time period limit. EPSI weighs the racks that are processed through EU-BURNOFF before and after in order to record the pounds of plastisol coatings that were processed. The facility was able to provide records for each batch and the 12-month rolling time period as required by the permits. Recordkeeping that is maintained by the facility include Burn date, Rack identification, weight before, weight after, and total weight burned. The limit on the a per batch basis is 260 pounds of plastisol coating per batch. Since January 2023 it appears that the largest amount of plastisol coating that was processed per batch was 87 lbs. which occurred on April 12, 2023. The majority of the of the batches appear to process around roughly 5-20 lbs. of plastisol coatings per batch. This is well below the permit limit. Since January 2023 the largest 12-month rolling plastisol coating throughput was calculated to be 13,638 lbs. This is approximately 44.7% of the 30,500 lbs of plastisol coating allowed to be processed through EU-BURNOFF as a part of PTI No. 16-18B.

EPSI is required to calculate and maintain records of 12-month rolling HCl emissions. The facility is keeping monthly HCl emission records based on Plastisol coating removed and an emission factor of 0.583 lbs of HCl emitted per lbs of plastisol removed. The emission factor is based on the stoichiometric conversion of carbon, chlorine and hydrogen that occurs from PVC combustion. A similar emission factor is used in the permit application of PTI No. 16-18B. EPSI provided emission calculations for the period of January 2023 through February 2024. The facility's recordkeeping shows that the largest 12-month rolling emissions during that time were 3.98 TPY during that time. This is roughly 44.7% of the permitted limit.

Special Condition III.5 requires that the facility submit a malfunction abatement plan (MAP) be submitted within 90 days of permit issuance. This date is noted as April 3, 2024. At this time EPSI had not submitted a MAP to the AQD district office. This is a violation of this special condition.

**EUDIPCOAT:**

This emission unit is two dip coating tanks. First the racks are dipped into the primer coating tank, and an air hose is used to spray the excess primer coating back into the tank. The parts air dry, then are placed in a natural gas-fired curing oven. The parts are then dipped into a plastisol coating dip tank, and then cured once again in the curing oven. The curing oven is equipped with a thermal oxidizer to reduce VOC emissions.

Both tanks are essentially holes in the floor that are filled with either the primer or the plastisol coating. ARC only uses one specific primer and one specific plastisol coating, so the tanks are kept full. When the tanks are not being used the facility covers them to prevent excess VOC emissions.

EPSI is required to monitor and record the temperature of the thermal oxidizer at least once every 15-minutes. These records are held electronically in the thermal oxidizer and Staff was shown the monitor during the inspection. EPSI indicated that they would work on extracting data so that hardcopy can be maintained.

Special condition V.1 requires that the facility determine VOC content of the coatings used in EUDIPCOAT using federal Reference Test Method 24. During the 2019 inspection it was indicated that the facility had Method 24 testing conducted on the plastisol and primer used. During the most recent inspection the facility appears to use the same plastisol and primer that was used during 2019 inspection.

The facility required to maintain monthly VOC emission calculations. The facility records the gallons used of each coating used and uses the VOC content of the coating to calculate VOC emissions. Staff was provided with VOC emissions for the time period of January 2023 through February 2024. The largest calculated VOC emissions were recorded in December 2023, which were 0.55 TPY. This is well below the permitted limit of 3.4 TPY.

The facility is required to perform non-certified visible emission observations at least once per day while EU-DIPCOAT is operating. In addition to these observations the facility is required to maintain written records at the facility of each visible emission observation. It was indicated to AQD Staff that at the time of the inspection EPSI was conducting visible emission observations but are not documenting the observations as required. This is a violation of Special Condition VI.5.

Special Condition VI.6 requires that records of any malfunction of the control equipment be maintained. Staff requested records of malfunctions of the thermal oxidizer for the time period of 2022 to present. It was indicated that there were no malfunction events of EU-DIPCOAT during that time period.

EU-DIPCOAT has a requirement that does not allow any visible emissions, except for uncombined water vapor to be exhausted from EU-DIPCOAT. During the inspection Staff did observe the exhaust stack, however the unit was not in operation during the inspection.

**FGFACILITY:**

This flexible group was added with the with the new permit issuance so would have only been required to provide records for the period starting January 4, 2024 when PTI No. 16-18B was

issued. The facility indicated that HAPs emissions are emitted from both EU-BURNOFF and EU-DIPCOAT, however since January 2024 there had been no recorded emissions from EU-DIPCOAT as the it had not been used in that time. Records also indicated that there were no plastisol batches processed through EU-BURNOFF during January 2024 and February 2024. This would mean that there were no HAP emissions during the period of January 4, 2024 and the inspection and well below the permitted limit.

Looking at emissions from EU-BURNOFF the highest individual HAP appears to be HCl. Using records from EU-BURNOFF HCl the largest 12-month rolling emissions were recorded as 3.98 TPY in January 2023. This has since been slowing decreasing as business regarding the burnoff oven has slowed down and the amount of plastisol processed has significantly decreased.

#### Welding:

The facility has a few welding operations stations that exhaust to the general in-plant environment. These operations appear to meet Rule 285(2)(i) requirements for brazing, soldering, welding, or plasma coating equipment.

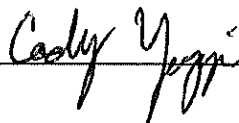
#### Grinding:

The facility has a few metal grinders that exhaust to the general in-plant environment. These operations appear to meet Rule 285(2)(2)(i)(vi)(B) requirements.

#### Conclusion:

At the time of the inspection and based on a review of records obtained during or following the inspection, the facility appears to be in non-compliance with PTI No 16-18B, for not submitting a MAP for EUBURNOFF by the required date and not documenting the required visible emissions observations of EUDIPCOAT. Staff stated to Mr. Nichols that a report of the inspection would be sent to the facility for their records. Staff concluded the inspection at 11:00 AM.-CJY

NAME



DATE

9/25/24

SUPERVISOR

